ORIGINAL ARTICLE

Occupational aspects of emergency medicine practice in Catalonia: the OPENCAT opinion survey

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Objective. To gather information on the contracting and training of members of the Catalan Society of Emergency Medicine (SoCMUE) who work in emergency medicine and services in Catalonia. To survey their opinions on certain aspects of resource availability and working conditions.

Methods. Cross-sectional descriptive study based on a survey sent to SoCMUE members. We studied the opinions of 5 types of respondent: hospital physicians, out-of-hospital physicians, hospital nurses, out-of-hospital nurses, and emergency medical technicians. Responses were grouped to compare the opinions of physicians and nurses and workers in hospital and prehospital settings.

Results. We received 616 responses from 1273 members (48.4% response rate). More physicians than nurses come from outside Catalonia and have contracts specifically linked to emergency care; in addition, physicians have done less postgraduate training in emergency medicine. More hospital staff than prehospital staff have permanent contracts linked to the department where they work. More hospital physicians are specialized in internal medicine than in family and community medicine. The opinion that emergency services are inadequately staffed was widespread. Most respondents believed that patient transport is good or adequate. However, respondents working in prehospital services expressed a lower opinion of transport. Great difficulty in combining work with family (life achieving work-life balance) was expressed by 13.5% overall, and more often by hospital staff. Some type of aggression was experienced by 88.2%; 60% reported the event to superiors. Nurses reported aggression more often than physicians. A police report was filed by 10.1%.

Conclusion. Emergency medicine working conditions can be improved in Catalonia according to members of SoCMUE. Relations between groups of professionals are not optimum in some aspects.

Keywords: Emergency health services. Emergencies. Health occupations: working conditions. Survey. Opinion. Emergency medicine.

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Opinión de los profesionales acerca de diversos aspectos laborales de los servicios de urgencias y emergencias de Cataluña: Estudio OPENCAT

Objetivo. Investigar las condiciones contractuales y formativas de los socios de la Societat Catalana de Medicina d'Urgències i Emergéncies (SoCMUE) que trabajan en el ámbito de la Medicina de Urgencias y Emergencias (MUE) en Cataluña, y su percepción acerca de algunos recursos disponibles y aspectos de su práctica laboral.

Método. Estudio descriptivo transversal mediante encuesta enviada a los socios de SoCMUE. Se distinguieron médicos hospitalarios y extrahospitalarios, enfermeros hospitalarios y extrahospitalarios, y técnicos en emergencia sanitaria (TES). Se realizaron agrupaciones de médico/enfermero y hospitalario/extrahospitalario.

Resultados. Respondieron 616 de 1.273 socios (48,4%). Respecto a los enfermeros, los médicos tienen mayor porcentaje de profesionales no comunitarios, contratos más vinculados a urgencias/emergencias, y han realizado menos formación de postgrado en MUE. Los profesionales hospitalarios, respecto a los extrahospitalarios, tienen mayor proporción de contratos fijos y vinculados al propio servicio, han realizado menos formación de postgrado, y la proporción de especialistas en medicina interna es mayor y en medicina familiar y comunitaria menor. Existe la percepción generalizada de plantillas insuficientes. La transferencia de pacientes es considerada mayoritariamente buena o correcta, pero es peor percibida por extrahospitalaria. El 13,5% refiere una conciliación familiar imposible, más frecuentemente en el ámbito hospitalario. El 88,2% ha sufrido algún tipo de agresión, el 60% lo comunicó a sus superiores (enfermeros más que médicos) y el 10,1% lo denunció judicialmente.

Conclusión. Para los socios de la SoCMUE, en la práctica de la MUE en Cataluña, existen algunas condiciones laborales mejorables y la relación entre colectivos de profesionales es poco óptima en algunos aspectos.

Palabras clave: Urgencias. Emergencias. Práctica profesional. Encuesta. Opinión. Medicina de urgencias y emergencias.

Introduction

The SUHCAT[1-4] report describes the characteristics of the hospital emergency services (HES) in Catalonia through a broad survey of 353 questions made to 79 of the 82 responsible for these HES. The study shows a detailed physical[1], functional[2], educational and investigative[3] map of the situation in which the Catalan HES found themselves in 2012. In addition, it includes the state of opinion of those responsible and their environment about the creation of the specialty of Medicine and Emergencies (MUE)[4]. However, the SUHCAT study does not include other aspects of interest such as the opinion of the workers of these HES in relation to labour aspects that have a direct impact on the professional or family conciliation. Aspects such as violence in the workplace are of interest, since emergency services are the environment where aggression is most frequently suffered, with verbal aggression being the most frequent, which can affect up to 75-80% of emergency workers[5-8]. Other aspects, such as good relationships among professionals, increase job satisfaction and reduce cross-cutting violence[9,10]. The SUHCAT report also does not explore out-of-hospital emergency services or the relationships established between its professionals and those of the HES.

For all these reasons, the Catalan Society of Medicine of Emergencies (SoCMUE) decided to address the study OPENCAT (Opinion of the Emergency Professionals of CATaluña) with the objective of knowing the contractual and training conditions of the partners of the SoCMUE working in the field of Emergency Medicine (EM) in Catalonia, and their perception of some available resources and aspects of their work practice.

This study is complemented by the SUHCAT-5[11] study, where the opinion of the SoCMUE members regarding some aspects of the HES in Catalonia is compared with that shown by those responsible in the SUHCAT report.

Method

The OPENCAT study is a cross-sectional descriptive study based on a structured survey, with an estimated duration of less than 10 minutes to be answered. All the partners of the SoCMUE constituted the universe of study. The members of the Board of Directors of the SoCMUE, in three successive meetings, elaborated a survey with 22 questions. Of these, 8 are part of the SUHCAT-5[11] report, while 18 (4 questions are shared in the two studies) are part of the OPENCAT study, structured in 4 sections: 1) characteristics of the professionals and their contracts, 2) academic training of the professionals, 3) perception regarding resources of support to the labour activity and 4) perception regarding different aspects of the development of their work activity. The survey was sent to the SoCMUE partners by email using the docs.google.com platform, and ensuring the confidentiality of the individual data, when requesting personal data. The respondent had to answer all the questions in a mandatory manner and once completed he did not have the option to repeat the survey. The sending and response period was between December 2015 and February 2016. The survey was sent up to 5 times to ensure the maximum possible participation. This project was approved by the Ethics Committee of the Hospital Universitari de Bellvitge.

In order to compare the different aspects of opinion, five groups of professionals were carried out according to the workforce to which the member belonged: hospital or out-of-hospital doctor, hospital or out-of-hospital nursing and emergency medical technician (EMT). Subsequently, to perform certain analyses and facilitate statistical comparisons, four different groups were carried out: 1) medical group: groups of hospital and out-of-hospital doctors; 2) nursing group: groups hospital and outpatient nursing; 3) hospital group: group doctors and hospital nursing; and 4) outpatient group: grouping doctors and outpatient nursing. In these last two groups TES was not included because they were not represented in the hospital setting, their natural comparator. In addition, it was investigated whether the type of contract or the type of work schedule had an influence on their perception of some work aspects.

The results of the survey were tabulated individually in a database using the SPSS 18.0 program. The results of the qualitative variables were summarized in absolute values and percentages, and the quantitative ones in mean and standard deviation for normal distributions, which was verified with the Kolmogorov-Smirnov test, or in medians and percentiles 25 and 75 (p25- 75) for non-normal distributions. For comparison between groups, the chi-squared test (linear trend for categorical variables with ordinal ratio), Fisher's exact test, one-way variance analysis or the Kruskal-Wallis test, depending on the type, was used. of variable and the conditions of applicability. In all cases, it was accepted that there were significant differences when the p-value was less than 0.05.

Results

The survey was sent to the 1,273 members of the SoCMUE, of whom 792 are doctors, 365 nurses and 106 EMT. 616 members (48.4%) answered: 367 doctors (46.3% of the medical partners), 190 nurses (52.1% of the nursing partners) and 59 EMT (55.7% of the EMT members).

Regarding the characteristics of the professionals (Table 1), the majority is of Spanish nationality, with an indefinite fixed contract and linked to emergencies, with fixed hours and with a professional career. With regard to academic training, the medical establishment has mainly the specialty of family and community medicine, followed by internal medicine. More than half of the professionals have completed postgraduate training in EM. The distribution of some of these characteristics

Table 1. Professional, work and training characteristics of the partners who participated in the study

	Total N = 616 n (%)	Hospital doctor N = 275 n (%)	Extra-hospital doctor N = 92 n (%)	Hospital nursing N = 88 n (%)	Extra-hospital nursing N = 102 n (%)	EMT N = 59 n (%)
Origin						
Spanish	569 (92.4)	243 (88.4)	84 (91.3)	87 (98.9)	99 (97.1)	56 (94.9)
Community	17 (2.8)	9 (3.3)	2 (2.2)	1 (1.1)	3 (2.9)	2 (3.4)
Not community	30 (4.9)	23 (8.4)	6 (6.5)	0 (0)	0 (0)	1 (1.7)
Type of contract						
Permanent fixed contract linked to emergencies	416 (67.5)	205 (74.5)	52 (56.5)	59 (67.0)	62 (60.8)	38 (64.4)
Non-fixed contract (includes interim) linked to emergencies	93 (15.1)	38 (13.8)	21 (22.8)	11 (12.5)	17 (16.7)	6 (10.2)
Indefinite fixed contract not linked to emergencies	64 (10.4)	22 (8.0)	11 (12.0)	11 (12.5)	12 (11.8)	8 (13.6)
Non-fixed contract (includes interim) not linked to emergencies	43 (7.0)	10 (3.6)	8 (8.7)	7 (8.0)	11 (10.8)	7 (11.9)
Type of working day						
Day with fixed schedule	556 (90.3)	245 (89.1)	87 (94.6)	79 (89.8)	90 (88.2)	55 (93.2)
Day with changing schedule	60 (9.7)	30 (10.9)	5 (5.4)	9 (10.2)	12 (11.8)	4 (6.8)
Your contract contemplates the professional career						
Yes	471 (76.5)	223 (81.1)	76 (82.6)	74 (84.1)	83 (81.4)	15 (25.4)
No	120 (19.5)	38 (13.8)	14 (15.2)	10 (11.4)	18 (17.6)	40 (67.8)
Do not know, no answer	25 (4.1)	14 (5.1)	2 (2.2)	4 (4.5)	1 (1.0)	4 (6.8)
Type of medical specialty						
Family and community medicine	200 (54.6)	138 (50.4)	62 (67.4)	–	–	–
Internal Medicine	70 (19.1)	67 (24.5)	3 (3.3)	–	–	–
Intensive medicine	11 (3.0)	8 (2.9)	3 (3.3)	–	–	–
Anaesthesiology and resuscitation	5 (1.4)	1 (0.4)	4 (4.3)	–	–	–
Orthopaedic surgery and traumatology	3 (0.3)	3 (1.1)	0 (0)	–	–	–
Other medical specialties	21 (5.7)	16 (5.8)	5 (5.4)	–	–	–
Other surgical specialties	9 (2.5)	7 (2.6)	2 (2.2)	–	–	–
No specialty	47 (12.8)	34 (12.4)	13 (14.1)	–	–	–
Type of training in emergency medicine						
Postgraduate training in the emergency department (master's degree)	364 (59.1)	115 (41.8)	71 (77.2)	65 (73.9)	100 (98.0)	13 (22.0)
Specialty in emergencies in another country	12 (1.9)	10 (3.6)	2 (2.2)	–	–	–
I have not done specific training in the emergency room	240 (39.0)	150 (54.5)	19 (20.7)	23 (26.1)	2 (2.0)	46 (78.0)

EMT: Emergency medical technician.

has significant differences between groups of professionals, as can be seen in Table 2. Thus, when comparing doctors with nurses, it can be seen that there are more non-community professionals among physicians and that their contracts are linked to emergencies. more frequently, while nurses have more often done specific postgraduate training in MUE. When comparing the hospital with the out-of-hospital, it was observed that hospital professionals more frequently have fixed contracts and more often linked to the service itself, while the extra-hospitals do not have this degree of linkage so frequently and have undergone post-graduate training. specific in EM more frequently. Referred exclusively to medical professionals, the extra-hospitals are more often the specialty of family and community medicine, while those of hospital are more often specialists in internal medicine.

Regarding the perception of the various labour aspects surveyed, these are presented detailed in Table 3 and the comparisons between the different groups in Table 4. The majority of partners have a computer system in the workplace, more in the hospital environment in the outpatient setting, the majority opinion is that the quality is correct (41.3%) and they consider that it usually facilitates their work, although the latter opinion is more frequent in doctors and in the hospital. Most professionals have a shared rest area, although the hospital staff refers to a greater absence of these areas, and with a quality that they consider more deficient than good, being worse perceived by doctors and professionals in the hospital environment. There is a generalized perception that the size of the workforce is insufficient, either occasionally or frequently, which is more commonly manifested by doctors and the hospital staff. The relationship between hospital and out-of-hospital professionals during the transfer of patients is considered mostly good or correct, although it is worse perceived by out-of-hospital professionals. They also highlight significant differences in the perception of the frequency with which it is not allowed to leave patients who arrive at the HES by ambulance; thus, doctors and hospital staff believe more frequently that this never occurs. Family conciliation is common, although 13.5% say that it is impossible, mainly among hospital professionals. There are few partners who report not having suffered any verbal or physical aggression during the performance of their work (11.8%), and it is observed that physical aggression is more frequent in the nursing collective. The attacked one denounces his superior aggressions 60% of the time, and judicially 10.1%. The nursing community, with respect to the doctor, more frequently denounces the aggressions against their superiors, and there are no differences between doctors and nurses or between the hospital and the outpatient setting regarding the percentage of judicial complaints.

The conditions of the work contract influence some of the opinions expressed by the partners (Figure 1). Thus, the perception of an insufficient staff is greater

Table 2. Comparative study of the professional, work and training characteristics of the partners who participated in the study, based on their grouping by academic formation and by the establishment

	Doctors N = 367 n (%)	Nursing N = 190 n (%)	Value of p	Hospital estate N = 363 n (%)	Extra-hospital estate N = 194 n (%)	Value of p
Origin			< 0.001			0.255
Spanish	327 (89.1)	186 (97.9)		330 (90.9)	183 (94.3)	
Community	11 (3.0)	4 (2.1)		10 (2.8)	5 (2.6)	
Not community	29 (7.9)	0 (0)		23 (6.3)	6 (3.1)	
Type of contract*			0.384			0.002
Permanent fixed contract	290 (79.0)	144 (75.8)		297 (81.8)	137 (70.6)	
Non-fixed contract (includes interim)	77 (21.0)	46 (24.2)		66 (18.2)	57 (29.4)	
Type of contract according to the emergency link*			0.021			0.017
Contract linked to emergencies	316 (86.1)	149 (78.4)		313 (86.2)	152 (78.4)	
Contract not linked to emergencies	51 (13.9)	41 (21.6)		50 (13.8)	42 (21.6)	
Type of working day**			0.573			0.459
Day with fixed schedule	332 (90.5)	169 (88.9)		324 (89.3)	177 (91.2)	
Day with changing schedule	35 (9.5)	21 (11.1)		39 (10.7)	17 (8.8)	
Your contract contemplates the professional career			0.594			0.089
Yes	299 (81.5)	157 (82.6)		297 (81.8)	159 (82.0)	
No	52 (14.2)	28 (14.7)		48 (13.2)	32 (16.5)	
Do not know, no answera	16 (4.4)	5 (2.6)		18 (5.0)	3 (1.5)	
Type of medical specialty***						< 0.001
Family and community medicine	–	–	–	138 (50.4)	62 (67.4)	
Internal Medicine	–	–	–	67 (24.5)	3 (3.3)	
Other specialties	–	–	–	35 (12.8)	34 (15.2)	
No specialty	–	–	–	34 (12.4)	13 (11.6)	
Type of training in emergency medicine			< 0.001			< 0.001
Postgraduate training in the emergency department (master's degree)						
Or Specialty in emergencies in another country (in case of doctors)	198 (54.0)	165 (86.8)		190 (52.3)	173 (89.2)	
I have not done specific training in the emergency room	169 (46.0)	25 (13.2)		173 (47.7)	21 (10.8)	

For the statistical analysis, the staff of the health emergencies was excluded due to lack of comparator. * The variable "Type of contract" has been grouped into two types of variables: fixed or non-fixed contract and contract dependent on emergencies or not. ** The variable "Type of working day" has been grouped into a fixed schedule (day of 40 or 35 hours per week) or with a changing schedule (previously variable "Day of hours or shifts"). *** Only the comparison between 275 hospital doctors and 92 out-of-hospital doctors is presented and analysed.

for professionals who have a changing schedule. On the other hand, the impossibility of family conciliation occurs more frequently in professionals with a non-fixed contract, when said contract is not linked to the service itself (of emergencies or emergencies) and among those who have a changing schedule. Finally, the aggressions during the performance of the work do not present significant differences depending on the characteristics of the labour contract.

Discussion

The OPENCAT study provides information about the SoCMUE partners regarding different aspects of their work environment that have not been investigated from this perspective. There are many data obtained, so we will focus the discussion on the four blocks that we consider most relevant or novel.

The first reflection refers to the training of medical professionals. The SUHCAT-2[2] report showed that most physicians working in the emergency service have a specialty in family and community medicine, followed by internal medicine, with 24.0% and 16.6%, respectively. These results are consistent with those of the current study, although the percentages found in the OPENCAT study are much higher, 54.6% and 19.1% respectively, and with a greater difference in the representation of these two major specialties. The greater representation of these two specialties is probably due to a greater associative interest of these specialists, in turn possibly due to a greater commitment to the practice of EM in a sustained manner and not as an occasional professional exercise over time. On the other hand, the greater inequality found in the distribution of these two specialties is due to the fact that most medical specialists in internal medicine work in the hospital setting, while in the extra-hospital setting (which was not investigated in the report). SUHCAT) specialists in family and community medicine are concentrated. In any case, it is very striking that with regard to the specific training in EM, about 60% of the respondents have opted for perform postgraduate university studies to improve their education, percentages that reach 98% and 77.2% in nurses and out-of-hospital doctors, respectively. This fact highlights the training deficit at the end of the regulated studies and evidences the need for the specialty in both emergency and emergency nursing as in EM in Spain. The training need detected by the OPENCAT study is added to different calls made from EMERGENCIAS[12-14] to other objective data in favour of these specialties, such as the European level to which Spain belongs[15,16], the opinion of a broad professional sector[4,17-19] and social[20,21], the interest in exercising EM among physicians seeking medical resident[22] and students of Medicine[23], or the proven fact that no training program

Tabla 3. Result of the opinion questions of the partners who participated in the study

	Total N = 616 n (%)	Hospital doctor N = 275 n (%)	Extra-hospital doctor N = 92 n (%)	Hospital Nursing N = 88 n (%)	Extra-hospital Nursing N = 102 n (%)	EMT N = 59 n (%)
It has computer system support (n = 616)						
Yes	569 (92.4)	275 (100)	74 (80.4)	86 (97.7)	90 (88.2)	44 (74.6)
No	47 (7.6)	0 (0)	18 (19.6)	2 (2.3)	12 (11.8)	15 (25.4)
Quality of computer system support (n = 569)						
Very good	22 (3.9)	15 (5.5)	1 (1.4)	6 (7.0)	0 (0)	0 (0)
Good	126 (22.1)	73 (26.5)	15 (20.3)	14 (16.3)	16 (17.8)	8 (18.2)
Correct	235 (41.3)	101 (36.7)	28 (37.8)	36 (41.9)	47 (52.2)	23 (52.3)
Deficient	143 (25.1)	66 (24.0)	22 (29.7)	22 (25.6)	23 (25.6)	10 (22.7)
Very poor	43 (7.6)	20 (7.3)	8 (10.8)	8 (9.3)	4 (4.4)	3 (6.8)
The computer system facilitates the work (n = 569)						
As usual	362 (63.6)	210 (76.4)	44 (59.5)	48 (55.8)	47 (52.2)	13 (29.5)
Exceptionally	171 (30.1)	56 (20.4)	24 (32.4)	31 (36.0)	35 (38.9)	25 (56.8)
Never	36 (6.3)	9 (3.3)	6 (8.1)	7 (8.1)	8 (8.9)	6 (8.1)
They have a rest area in the emergency room (n = 616)						
Yes, exclusive	98 (15.9)	54 (19.6)	8 (8.7)	9 (10.2)	17 (16.7)	10 (17.0)
Yes, shared	447 (72.6)	170 (61.8)	84 (91.3)	71 (80.7)	84 (82.3)	38 (64.4)
No	71 (11.5)	51 (18.6)	0 (0)	8 (9.1)	1 (1.0)	11 (18.6)
Quality of the rest area (n = 545)						
Very good	23 (4.2)	4 (1.8)	4 (4.3)	2 (2.5)	9 (8.9)	4 (8.3)
Good	86 (15.8)	21 (9.4)	18 (19.6)	10 (12.5)	28 (27.7)	9 (18.8)
Correct	232 (42.6)	110 (49.1)	37 (40.2)	27 (33.8)	39 (38.6)	19 (39.6)
Deficient	158 (29.0)	70 (31.2)	26 (28.3)	31 (38.8)	21 (20.8)	10 (20.8)
Very poor	46 (8.4)	19 (8.5)	7 (7.6)	10 (12.5)	4 (4.0)	6 (12.5)
Dimension of the employee workforce						
Enough, except for exceptional situations	159 (25.8)	49 (17.8)	18 (19.6)	14 (15.9)	50 (49.0)	28 (47.5)
Occasionally insufficient*	235 (38.1)	122 (44.4)	41 (44.6)	21 (23.9)	32 (31.4)	19 (32.2)
It is frequently insufficient*	222 (36.0)	104 (37.8)	33 (35.9)	53 (60.2)	20 (19.6)	12 (20.3)
Perception of the relationship between out-of-hospital professionals and hospital during the transfer of the patient in the emergency room						
Very good	53 (8.6)	23 (8.4)	4 (4.3)	13 (14.8)	7 (6.9)	6 (10.2)
Good	162 (26.3)	90 (32.7)	11 (12.0)	24 (27.3)	24 (23.5)	13 (22.0)
Correct	305 (49.5)	135 (49.1)	53 (57.6)	43 (48.9)	50 (49.0)	24 (40.7)
Deficient	88 (14.3)	26 (9.5)	20 (21.7)	8 (9.1)	21 (20.6)	13 (22.0)
Very poor	8 (1.3)	1 (0.4)	4 (4.3)	0 (0)	0 (0)	3 (5.1)
Frequency with which the patient cannot be transferred from the ambulance to the hospital						
As usual	151 (24.5)	36 (13.1)	31 (33.7)	19 (21.6)	33 (32.4)	32 (54.2)
Exceptionally	323 (52.4)	144 (52.4)	50 (54.3)	48 (54.5)	56 (54.9)	25 (42.4)
Never	142 (23.1)	95 (34.5)	11 (12.0)	21 (23.9)	13 (12.7)	2 (3.4)
Your work allows you to have work conciliation						
Yes, usually	297 (48.2)	131 (47.6)	40 (43.5)	28 (31.8)	64 (62.7)	34 (57.6)
Yes sometimes	236 (38.3)	102 (37.1)	45 (48.9)	38 (43.2)	32 (31.4)	19 (32.2)
Never	83 (13.5)	42 (15.3)	7 (7.6)	22 (25.0)	6 (5.9)	6 (10.2)
Have you suffered some type of aggression during his work?						
I haven't suffered any aggression	73 (11.8)	28 (10.2)	9 (9.8)	9 (10.2)	21 (20.6)	6 (10.2)
Yes, only verbal aggressions	340 (55.2)	190 (69.1)	58 (63.0)	35 (39.8)	38 (37.3)	19 (32.2)
Yes, physical aggression (physical and verbal or physical)	202 (33.0)	57 (20.7)	25 (27.2)	44 (50.0)	43 (42.2)	34 (57.6)
Has it been denounced to a superior? (n = 543 agredidos)						
I have not reported it	217 (40.0)	103 (41.7)	30 (36.1)	20 (25.3)	37 (45.7)	27 (50.9)
Yes, only for verbal aggressions	179 (32.9)	103 (41.7)	31 (37.3)	25 (31.6)	16 (19.8)	4 (7.5)
Yes, due to physical aggression (physical and verbal or physical)	147 (27.1)	41 (16.6)	22 (26.6)	34 (43.1)	28 (34.6)	22 (41.5)
Has it been denounced judicially?						
I have not reported it	488 (89.9)	233 (94.3)	10 (12.0)	74 (91.4)	–	–
Yes, only for verbal aggressions	0 (0)	14 (5.7)	70 (88.6)	7 (8.6)	–	–
Yes, due to physical aggression (physical and verbal or physical)	55 (10.1)	14 (5.7)	10 (12.0)	9 (11.4)	7 (8.6)	15 (28.3)

EMT: Emergency Medical Technician

* Staff is scarce some day of the week or some week of the year. ** The staff is scarce many days of the week or many weeks of the year.

of officially approved specialties in Spain adequately covers the field of knowledge of the EM[24].

Another aspect valued in the survey was the relationship between professionals of the EM, which has not been previously investigated in Spain. This point was analysed through the question about the quality of the transfer of the patient who arrives at the HES by ambulance, because it is probably the point at which the three groups (doctors, nurses and EMT) and the two estates (extra-hospital and hospital) interact more frequently. This ratio is considered deficient or very deficient by 15.6% of professionals, and this

Table 4. Comparative study of the opinión questions of the partners who partipated in the study

	Physicians N = 367 n (%)	Nurses N = 190 n (%)	Valor de p (linear trend)	Hospital estate N = 363 n (%)	Extra-hospital estate N = 194 n (%)	Value of p (linear trend)
It has computer system support (n = 557)			0.237			< 0.001
Yes	349 (95.1)	176 (92.6)		361 (99.4)	164 (84.5)	
No	18 (4.9)	14 (7.4)		2 (0.6)	30 (15.5)	
Quality of computer system support (n = 525)			0.346			0.052
Very good	16 (4.6)	6 (3.4)		21 (5.8)	1 (0.6)	
Good	88 (25.2)	30 (17.0)		87 (24.1)	31 (18.9)	
Correct	129 (37.0)	83 (47.2)		137 (38.0)	75 (45.7)	
Deficient	88 (25.2)	45 (25.6)		88 (24.4)	45 (27.4)	
Very poor	28 (8.0)	12 (6.8)		28 (7.8)	12 (7.3)	
The computer system facilitates the work (n = 525)			< 0.001			< 0.001
As usual	254 (72.8)	95 (54.0)		258 (71.5)	91 (55.5)	
Exceptionally	80 (22.9)	66 (37.5)		87 (24.1)	59 (36.0)	
Never	15 (4.3)	15 (8.5)		16 (4.4)	14 (8.5)	
They have a rest area in the emergency room (n = 557)			0.195			0.014
Yes, exclusive	62 (16.9)	26 (13.7)		63 (17.4)	25 (12.9)	
Yes,, shared	254 (69.2)	155 (81.6)		241 (66.4)	168 (86.6)	
No	51 (13.9)	9 (4.7)		59 (16.3)	1 (0.5)	
Quality of the rest area (n = 497)			0.035			< 0.001
Very good	8 (2.5)	11 (6.1)		6 (2.0)	13 (6.7)	
Good	39 (12.3)	38 (21.0)		31 (10.2)	46 (23.8)	
Correct	147 (46.5)	66 (36.5)		137 (45.1)	76 (39.4)	
Deficient	96 (30.4)	52 (28.7)		101 (33.2)	47 (24.4)	
Very poor	26 (8.2)	14 (7.7)		29 (9.5)	11 (5.7)	
Dimension of the employee workforce			0.037			< 0.001
Enough. except for exceptional situations	67 (18.3)	64 (33.7)		63 (17.4)	68 (35.1)	
Occasionally insufficient *	163 (44.4)	53 (27.9)		143 (39.4)	73 (37.6)	
It is frequently insufficient **	137 (37.3)	73 (38.4)		157 (43.3)	53 (27.3)	
Perception of the relationship between out-of-hospital professionals and hospital during the transfer of the patient in the emergency room			0.585			< 0.001
Very good	27 (7.4)	20 (10.5)		36 (9.9)	11 (5.7)	
Good	101 (27.5)	48 (25.3)		114 (31.4)	35 (18.0)	
Correct	188 (51.2)	93 (48.9)		178 (49.0)	103 (53.1)	
Deficient	46 (12.5)	29 (15.3)		34 (9.4)	41 (21.1)	
Very poor	5 (1.4)	0 (0)		1 (0.3)	4 (2.1)	
Frequency with which the patient cannot be transferred from the ambulance to the hospital			< 0.001			< 0.001
As usual	67 (18.3)	52 (27.4)		55 (15.2)	64 (33.0)	
Exceptionally	194 (52.9)	104 (54.7)		192 (52.9)	106 (54.6)	
Never	106 (28.9)	34 (17.9)		116 (32.0)	24 (12.4)	
Your work allows you to have work conciliation			0.944			0.001
Yes, usually	171 (46.6)	92 (48.4)		159 (43.8)	104 (53.6)	
Yes, sometimes	147 (40.1)	70 (36.8)		140 (38.6)	77 (39.7)	
Never	49 (13.4)	28 (14.7)		64 (17.6)	13 (6.7)	
Have you suffered some type of aggression during his work?			0.002			0.725
I haven't suffered any aggression	37 (10.1)	30 (15.8)		37 (10.2)	30 (15.5)	
Yes, only verbal aggressions	248 (67.6)	73 (38.4)		225 (62.0)	96 (49.4)	
Yes, physical aggression (physical and verbal or physical)	82 (22.3)	87 (45.8)		101 (27.8)	68 (35.1)	
Has it been denounced to a superior? (n = 490 agredidos)			0.001			0.565
I have not reported it	133 (40.3)	57 (35.6)		123 (37.7)	67 (40.9)	
Yes, only for verbal aggressions	134 (40.6)	41 (25.6)		128 (39.3)	47 (28.7)	
Yes, due to physical aggression (physical and verbal or physical)	63 (19.1)	62 (38.8)		75 (23.0)	50 (30.5)	
Has it been denounced judicially? (n = 490 agredidos)			0.302			0.207
I have not reported it	306 (92.7)	144 (90.0)		303 (92.9)	147 (89.6)	
Yes, only for verbal aggressions	0 (0)	0 (0)		0 (0)	0 (0)	
Yes, due to physical aggression (physical and verbal or physical)	24 (7.3)	16 (10.0)		23 (7.1)	17 (10.4)	

The statistic of the technicians in health emergencies was excluded for the statistical analysis due to lack of comparator. * Staff is scarce some day of the week or some week of the year. ** The staff is scarce many days of the week or many weeks of the year.

perception is clearly and significantly more prevalent among professionals in the out-of-hospital setting, and very similar in its three profiles of professionals (doctors, nurses and EMT). Although the high stress involved in activity in emergencies and emergencies is well known[25-28] this should not mitigate the unacceptable bad relationship that can sometimes be established between colleagues. Therefore, we consider it fundamental to investigate in the future the ultimate reasons for these perceptions among the professionals of the EM in Catalonia, in order to start up improvement actions. Additionally, this unique question of the

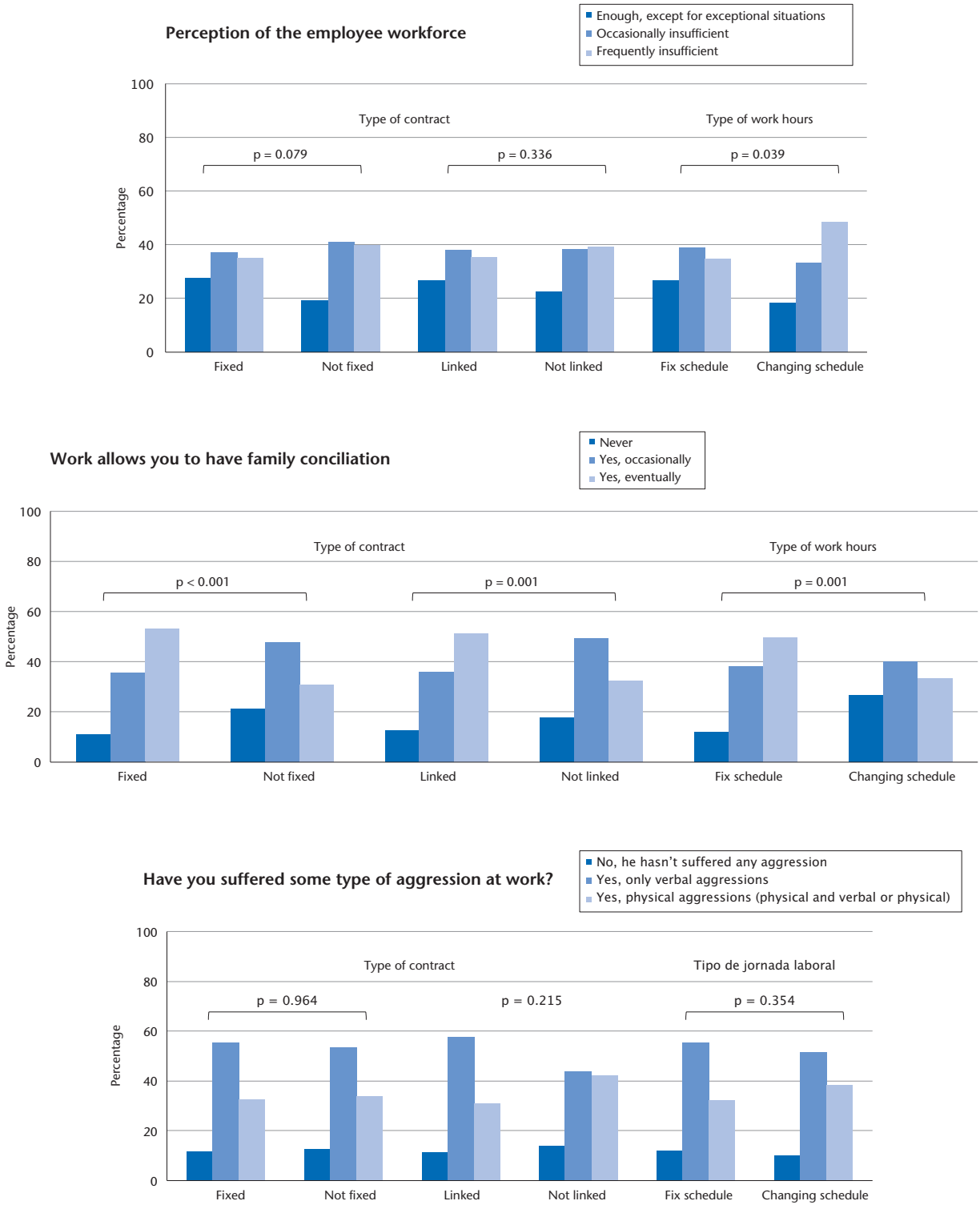

Figure 1. Comparative study in perception of the size of the workforce, family conciliation and aggression during the performance of work according to the type of contract and the working day (p of linear trend).

OPENCAT study has allowed us to see that it should be deepened in greater detail in other relational aspects within this group during the performance of their work, and also in their relationships with other professionals from other specialties or medical collectives. In Spain, unlike other countries[29-31], this is very little known so far and it is essential to discover it in its entirety, since a bad relationship between professionals is associated with demotivation and attitudes of violence[9,10]. Educational interventions can clearly im-

prove these relationships with positive effects on job quality, citizenship, respect and satisfaction[32,33].

In third place, there is a 13.5% of professionals who think that family conciliation is impossible, mostly in the hospital group. Perhaps the fact that in almost 50% of the HES of Catalonia persist the 16 or 24-hour guard systems can have an important influence[2]. Thus, this hypothesis we have been able to verify when it has analysed the relationship between the type of professional's schedule with family conciliation. Those professionals with a changing schedule have a worse family conciliation, in the same way that this is observed in professionals with non-fixed contracts and in those with contracts not linked to the emergency services themselves. The difficulty for family conciliation is a constant in Western societies that has only begun to pay attention in recent years. Due to the conditions in which work is carried out in the EM, it is foreseeable that this family conciliation will be even more difficult if it is possible in other medical specialties, although we have not been able to find published studies in this field that attest to it. In any case, it seems that the lack of family reconciliation is one more element that can contribute to the development of burnout in emergency professionals, so the measures aimed at correcting it should be explored[26,34,35].

Finally, in the aggression section, the respondents report a high percentage of aggressions: in particular, physical aggression reached 32.9% and verbal aggression reached 85.7%. These aggressions occur more in the nursing establishment, especially the extra-hospital care unit. These are figures similar to those presented in two studies recently published in Spain: Bernaldo De-Quirós et al.[36] surveyed 441 professionals from SUMMA-112 (Madrid) and found that 34.5% had received physical aggression, 75.3% threats and 76.4% insults or insults; Galián-Muñoz et al.[37], on the other hand, analysed a sample of 137 HES nurses from the Region of Murcia and found that 36.5% had received some type of physical aggression during the last year and 90.5% verbal aggressions. These figures are similar to other geographical environments such as the United States, with a different idiosyncrasy and where the culture of reporting the facts is more established. Thus, Kowalenko et al.[7] conducted a survey of 171 emergency physicians in the state of Michigan, and found that 74.9% had suffered a verbal aggression and 28.1% physical. Faced with this high incidence of aggressions, there is a low tendency to complain about EM professionals in Catalonia, both to their superiors and especially to judicial authorities, probably because the health professional assumes to some extent the aggression as part of their work[33]. It is possible that there is also the perception of insufficient support from the company, especially in the case of verbal aggressions. Education programs for the population are necessary, but the emergency professional must also be prepared to prevent these aggressions[38], since although these programs have a positive impact in the short term, the long-term results are more doubtful. This is shown by a study by Fernandes et al.[32] in which the application of a violence prevention program manages to reduce aggression at 3 months (OR 0.35, 95% CI 0.15-0.84), but this beneficial effect disappears after 6 months (OR 0.79, 95% CI 0.48-1.40). It must be taken into account that in the eyes of the current Spanish law, and in particular of the latest update of the Organic Law 10/1995 of November 23 of the Penal Code (published on 03/31/2015 and with entry into force on 01 / 07/2015), the aggressions against health professionals of the National Health System constitute a crime against the authority.

Our study has several limitations. The first is that the survey was addressed to the partners of the SoCMUE, and we cannot know to what extent they are representative of the real universe of professionals working in emergency and emergencies, and if the percentage of association and response to the survey of the partners are proportional to the universe of each estate and professional field. The second is that the survey answered about 50% of partners, and may have been those with a specific interest. The third is that the survey did not ask about the gender or age of the partner and, therefore, we cannot know if there are different perceptions based on these variables, especially in aspects such as family conciliation or aggression. However, we believe that the OPENCAT study reveals, on the part of the SoCMUE partners that work in the emergency and emergencies services, some relevant facts that suggest that work conditions, communication between professionals and prevention programs must be improved. of violence.

Conflicting interests

The authors declare no conflict of interest in relation to this article.

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Ethical Responsibilities

The Ethics Committee of the Hospital Universitari de Bellvitge approved the study. Informed consent was obtained from participants.

All authors have confirmed the maintenance of confidentiality and respect for patients' rights in the author's responsibilities document, publication agreement and assignment of rights to EMERGENCIAS.

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